

MEGAN MACNEIL MYERS
ATTORNEY AT LAW
509-32ND AVENUE
SAN FRANCISCO, CA 94121

TELEPHONE: (415) 994-1616
FACSIMILE: (415) 387-4708
e-mail: meganmmyers@yahoo.com

00-REN-1194

November 14, 2005

California Energy Commission Dockets Unit
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

DOCKET 04-IEP-11
DATE NOV 14 2005
RECD NOV 14 2005

RE: Docket No. 04 IEP 1
Docket No. 00-RN-1194

Dear Docket Office:

Please find enclosed the following document: **MOTION OF THE AMERICANS FOR SOLAR POWER FOR ADOPTION OF PERFORMANCE-BASED INCENTIVES FOR LARGE COMMERCIAL CUSTOMERS IN THE CALIFORNIA SOLAR INITIATIVE.** This Motion was filed at the California Public Utilities Commission on November 10, 2005. We are also submitting this at the CEC electronically on November 14, 2005. Furthermore, a hard copy has also been hand-delivered to the CEC Dockets Unit today.

If you have any questions, please call me at (415) 994-1616 or e-mail me at meganmmyers@yahoo.com.

Sincerely,

Megan M. Myers
Attorney for
Americans for Solar Power

Enclosures

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding
Policies, Procedures and Incentives for
Distributed Generation and Distributed Energy
Resources.

Rulemaking 04-03-017
(Filed March 16, 2004)

**MOTION OF THE AMERICANS FOR SOLAR POWER
FOR ADOPTION OF PERFORMANCE-BASED INCENTIVES
FOR LARGE COMMERCIAL CUSTOMERS IN THE
CALIFORNIA SOLAR INITIATIVE**

JAN E. McFARLAND
Executive Director
Americans for Solar Power

1100 11th Street, Suite 323
Sacramento, CA 95113
(916) 346-7578
(916) 447-2940 (FAX)
janmcfar@sonic.net

MEGAN MACNEIL MYERS
Attorney for the
Americans for Solar Power

509 32nd Avenue
San Francisco, CA 94121
(415) 994-1616
(415) 387-4708 (FAX)
meganmmyers@yahoo.com

November 10, 2005

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding
Policies, Procedures and Incentives for
Distributed Generation and Distributed Energy
Resources.

Rulemaking 04-03-017
(Filed March 16, 2004)

**MOTION OF THE AMERICANS FOR SOLAR POWER
FOR ADOPTION OF PERFORMANCE-BASED INCENTIVES
FOR LARGE COMMERCIAL CUSTOMERS IN THE
CALIFORNIA SOLAR INITIATIVE**

The Americans for Solar Power (ASPV)¹ respectfully move the Commission to adopt performance-based incentives (PBI) for large commercial customers participating in the California Solar Initiative (CSI). To this end, this motion (including relevant attachments) provides a detailed description of ASPv's CSI large commercial customer PBI proposal and requests review and adoption of that proposal pursuant to the process and schedule included in this motion. This motion is filed pursuant to Rule 45 of the Commission's Rules of Practice and Procedure.

INTRODUCTION

On June 14, 2005, an Assigned Commissioner and Administrative Law Judge's Ruling (ACR) was issued in this proceeding seeking comment on an attached "Joint Staff Recommendations to Implement Governor Schwarzenegger's One Million Solar Roofs Program" (Staff Report). The Staff Report, produced jointly by staff of this Commission and the California Energy Commission (CEC) (Joint Staff), provides "an analysis of key issues related to

¹ ASPv is an organization made up of a team of the nation's foremost companies, leaders, experts, and advocates having an extensive background in photovoltaic (PV) solar energy and a dedication to the advancement of the U.S. market. The companies that make up ASPv include: First Solar, LLC; BP Solar; Kyocera Solar, Inc.; Sun Power & Geothermal Energy Corporation; Sanyo Energy (USA) Corporation; Ballard Power Systems; Sun Edison, LLC; Renewable Ventures LLC; and SMA America, Inc. ASPv is committed to making on-site solar power economic, accessible, and convenient for American electricity consumers.

implementing what Joint Staff call the California Solar Initiative (CSI).”² ASPv filed opening and reply comments on the ACR and Staff Report on July 7 and July 21, 2005, respectively.

Among its conclusions, the Staff Report identified “six program elements” needed to enhance and further the CSI. According to the Staff Report, these program elements “capitalize on successful elements of the CEC, CPUC, German, and Japanese solar programs,” “provide alternatives to improve identified weaknesses,” and reflect the “three themes” that emerged in comments filed earlier in response to the Million Solar Roofs Initiative.³ With reference to the “three themes,” the Staff Report states:

“Ratepayers may receive more benefit from programs already determined to be cost effective, such as energy efficiency, other distributed generation technologies, or utility-scale renewables. Under conditions where incentives are long-term, predictable, and assured, solar energy will become a low-cost option, and the industry self-sustaining.”⁴

Significantly, included among the six needed program elements was the adoption of “performance-based incentives.”⁵ To achieve that program element, the Staff Report included consideration of a Performance-Based Incentive Model that would require “the incentive payments [to] be implemented by January 2007 for a term of 20 years, based on the completion date of the system.”⁶

In its comments responding to the Staff Report, filed jointly with PV Now (Joint Comments), ASPv strongly advocated for a transition away from the capacity-based rebates that are currently in place to performance-based incentives (PBI). The Joint Comments also emphasized the need for the “the Commission’s decision [to] establish a separate expedited

² Staff Report, at p. 1

³ Staff Report, at p. 12.

⁴ Staff Report, at p. 12 (bulleting removed). It is **important** to note that 3,000 MW of PV must be installed in the State of California in order for the technology to attain retail competitiveness, i.e., for the PV industry to become self-sustaining and no longer require ratepayer incentives.

⁵ Staff Report, at p. 12.

process for design and implementation of PBI, using a facilitated workshop approach for designing the PBI program.”⁷

ASPv clearly shares the Staff Report’s emphasis on the importance of a PBI mechanism to the success of the new CSI program and believes that this “program element” is needed to achieve the policy goal of maximizing ratepayer benefits from the incentive funding by emphasizing and rewarding system performance. In this regard, PBI rewards performance or electrical output, as opposed to installed system costs, and creates incentives for manufacturers, installers, and customers to be more attentive to the electrical output of an installed PV system. PBI is likely to diffuse political concerns about system quality and performance and use of program funds, since the system owners will only be paid in proportion to the amount of energy produced by the system and program funding will reward actual system performance.

While ASPv supports the Staff Report’s recommendation to implement PBI for the program, ASPv has a different view of how the PBI should be structured in order to initiate a new incentive program that is roughly equivalent on a net present value basis to the current \$2.80 per Watt capacity-based rebate for PV.⁸ ASPV also has concluded that a 20-year payment stream is too long a time period and that the PBI structure should instead be based on a 10-year pay-out term that is more acceptable to the financial community and reduces administrative expenses.

For these reasons, ASPv believes that the Commission must act quickly to adopt PBI for large commercial customers participating in the California Solar Initiative. This matter becomes

⁶ Staff Report, at p. 16.

⁷ Id., at p. 3

⁸ ASPv believes that a PBI payment of 25 cents/kWh over 20 years is roughly equivalent to \$3.92 per Watt of capacity-based rebates when the actual kWh of electricity generated per Watt of installed PV capacity is properly accounted for, assuming a 21 percent PV capacity factor and a 10 percent discount rate.

all the more important given the Governor's stated intention to work with the Commission to implement a long-term Million Solar Roofs program to expand the use of solar energy in homes and businesses in California.

To that end, ASPv moves the Commission for consideration and adoption of the PBI model proposed by ASPv in this motion. ASPv has included and incorporated its proposed PBI model in this motion as Attachment A, along with a description of PowerClerk, an on-line program for rebate applications, included and incorporated as Attachment B. Both are described below, and the model can also be accessed through ASPv's website (www.aspv.org) or directly at www.forsolar.org/?q=node/119. This motion also provides a recommended process and timetable for the review and adoption of the proposed PBI model by the Commission.

ASPv's proposal is designed to accelerate the Governor's 3,000 MW goal and remain within budget considerations. It does so consistent with the Commission's desire for a program structure that maximizes output. Additionally, the incentive structure is designed to maximize the new Federal tax credits for solar energy. ASPv, therefore, requests that the Commission grant this requested relief in an expedited manner.

I. Adoption of Performance-Based Incentives Is Critical to the Success of the California Solar Initiative.

Since parties filed reply comments on the Staff Report in July 2005, no further action has been taken by the Commission on the California Solar Initiative (CSI) program. As noted above, ASPv in its Joint Comments on the Staff Report, however, not only advocated for Commission adoption of PBI for large commercial customers in the CSI, but also agreed with the Staff Report's conclusion that, with "an appropriately designed performance-based incentive paid on

actual kWh produced, we anticipate commercial sector penetration will be higher than under a capacity-based model.”⁹

From ASPv’s perspective, therefore, Commission action on adoption of PBI for customers in the CSI program is overdue, and expedited consideration and adoption of such PBI is now required. To that end, ASPv has not only filed this motion with the Commission seeking adoption of the proposed CSI PBI model described below, but has simultaneously sought similar relief at the CEC in both the 2005 Integrated Policy Report Docket Number 04-IEP-1 and the 2006 Renewable Energy Investment Plan Docket Number 00-RN-1194. ASPv believes that coordination between the CEC and this Commission is essential for creating and implementing a well-designed PBI program for large commercial customers and urges collaboration by both commissions to achieve that end.¹⁰

In its Joint Comments filed in July 2005, ASPv had recommended that “the Commission establish a workshop process for the purpose of designing PBI that ensures PV investments remain affordable to the end-use customer, as is true under the current incentive structure.”¹¹ However, given the Commission’s delay in responding to this recommended action item, ASPv has taken steps to design a detailed PBI program for application to large commercial customers in the new CSI program and, by this motion, asks that the Commission commence a process, as recommended below, for the immediate review and adoption of ASPv’s proposed PBI model.

Specifically, it is ASPv’s position that the Commission must act quickly and set up an open process that provides for a decision and implementation of a PBI program and structure in

⁹ Joint Comments, at p. 19.

¹⁰ While this motion is limited to proposing a specific PBI program, ASPv believes that the Commission must also continue to advance and make further refinements to time-of-use pricing that is tailored to meeting the goals of the CSI program.

¹¹ Joint Comments at p. 23.

the first quarter of 2006. PBI must be implemented no later than the second quarter of 2006 in order to take maximum advantage of Federal tax credits available during 2006 and 2007. Utilizing the Federal tax credits will reduce the amount that California's ratepayers are required to pay to fund the CSI. In order to use the Federal tax credits, the PBI program *must* be in place by mid-2006, which would require a Commission decision approving PBI by the first quarter of 2006. A CSI PBI program that captures the Federal tax credits available in 2006 and 2007 will essentially provide a 30 percent upfront incentive for installed projects through the first-year Federal tax credit and additional benefits through accelerated depreciation over five years.

As part of its proposal detailed below, ASPv is recommending an immediate transition to PBI for commercial systems over 30 kW. ASPv also believes that smaller commercial, residential retrofit, and residential new construction programs should be considered for a PBI transition, but at a later date, after experience has been gained from the commercial transition. ASPv wants to ensure that the entire CSI program meets its goals that all incentives are designed in a manner that rewards and meets the desired policy goals of the new solar program. Clearly, ASPv strongly believes that PBI is the best means to achieve that end and further fosters the ability of PV to meet other important policy goals and technology advancements, such as the "smart grid" and time-of-use pricing.

II. ASPv's PBI Proposal Merits Consideration and Adoption by this Commission.

A. Overview

As detailed below and in Attachment A to this motion, ASPv proposes a PBI program that is designed to provide a *10-year declining feed-in tariff* for eligible commercial solar electric systems installed over the 10-year period starting in 2007 and ending in 2016. The initial-year rate for the PBI would decline annually as installed system costs decline (see Table 4 below).

Residential retrofit and new home systems would remain with a capacity-based incentive (CBI) for the foreseeable future, as is currently the norm, or until a PBI program is implemented for these customers.

The key business assumptions made in the design of the ASPv's proposed PBI program include:

- An annual decline in system prices of 7%;
- Rebate level should provide an estimated 8% customer return over 25 years for commercial customers and a 7% return for government and non-profits;
- Current Federal tax credits available through 2007 must be reflected in the PBI model;
- PBI payment stream to private-sector customers is assumed to be taxable;
- CSI program continues to offset customer load on the customer side of the meter with continued retail net metering and customer ownership of Renewable Energy Credits;
- PBI program design must not inhibit the financing of new PV systems;
- PBI projects that receive a confirmed reservation for any given installment year are ensured a multi-year commitment to a payment stream that is secured;
- Open, transparent and electronic program and system data must be publicly available in order to provide for reasoned analysis and program adjustment going forward;
- Timely program adjustments will be required to reflect market changes.

Since the proposed annual average 7% decline is an estimate and industry price declines are seldom uniform year to year, it is important that there be an adjustment mechanism based on ratepayer and global market considerations that would provide a commercial customer with a minimum 8% return over 25 years. The following tables (Tables 1 through 3) reflect the predicted increase in solar electricity generation in California in upcoming years.

Table 1: Solar Electricity Production (MWh)

Initial Year of Operation*	Total Solar Electricity Produced	% of Total CA Load	Commercial	Residential New Home	Residential Retrofit
2007	109,363	0.043%	13,851	20,176	75,336
2008	260,367	0.102%	77,390	57,420	125,557
2009	413,552	0.160%	127,486	110,411	175,655
2010	619,903	0.236%	189,090	202,091	228,722
2011	838,065	0.316%	245,503	280,485	312,076
2012	1,152,191	0.429%	343,284	353,897	455,010
2013	1,624,008	0.598%	486,861	515,559	621,589
2014	2,159,049	0.785%	678,981	641,155	838,913
2015	3,480,515	1.250%	1,179,475	842,955	1,458,085
2016	4,074,457	1.447%	1,790,331	840,520	1,443,606

* Reflects actual payment schedule; incentives and rebates will be reserved six months to 1 year prior to being paid.

Table 2: Solar Electric Capacity Installed/Reserved (MW)

Initial Year of Operation*	<i>New Solar Capacity Installed</i>	<i>Cumulative Solar Capacity</i>	Commercial	Residential New Home	Residential Retrofit
2007	<i>63.7</i>	<i>63.7</i>	28.7	5.0	30.0
2008	<i>75.7</i>	<i>139.5</i>	33.9	8.8	33.0
2009	<i>90.8</i>	<i>230.3</i>	37.3	16.8	36.7
2010	<i>109.3</i>	<i>339.6</i>	43.5	25.4	40.4
2011	<i>135.5</i>	<i>475.2</i>	49.2	40.5	45.8
2012	<i>179.9</i>	<i>655.1</i>	66.0	53.9	60.0
2013	<i>256.3</i>	<i>911.4</i>	96.3	70.0	90.0
2014	<i>373.4</i>	<i>1284.8</i>	139.6	106.0	127.8
2015	<i>638.8</i>	<i>1923.6</i>	283.3	154.0	201.5
2016	<i>1077.5</i>	<i>3001.1</i>	471.5	222.0	384.0
Totals:	3,001		1,249	703	1,049

* Reflects actual payment schedule; incentives and rebates will be reserved six months to 1 year prior to being paid.

Table 3: PV Installations, California Curve (MW)

Initial Year of Operation*	Commercial	Residential New Home	Residential Retrofit	Total CA Electricity Retail Sales (MWh)
2007	28.7	5.0	30.0	253,000,000
2008	33.9	8.8	33.0	256,036,000
2009	37.3	16.8	36.7	259,108,432
2010	43.5	25.4	40.4	262,217,733
2011	49.2	40.5	45.8	265,364,346
2012	66.0	53.9	60.0	268,548,718
2013	96.3	70.0	90.0	271,771,303
2014	139.6	106.0	127.8	275,032,558
2015	283.3	154.0	201.5	278,332,949
2016	471.5	222.0	384.0	281,672,944
	1,249	703	1,049	285,053,020
CAGR + 100%	136%	152%	133%	

* Reflects actual payment schedule; incentives and rebates will be reserved six months to 1 year prior to being paid

The PBI program proposed here is similar to very successful programs in Germany, Spain and Japan. However, the PBI program has been designed to provide additional benefits to the State of California, including:

- A savings of approximately \$300 million resulting in a combined large commercial customer PBI and residential/small commercial CBI program cost of no more than \$2.65 billion dollars. Because the PBI program enables commercial customers to better leverage Federal tax credits, it provides enormous cost sharing with the Federal government for the State of California.
- A sustainable CSI program both economically and politically. The PBI program will be funded through balanced annual budget expenditures, which will enable optimal fund utilization. ASPv is proposing an average annual budget expenditure of \$213 million through the first ten (10) years of the program and \$140 million over the nineteen (19) year pay-out term of the program (see Table 4 below).

B. ASPv Proposed PBI Program Structure

The PBI program proposed by ASPv is structured to be a ten (10) year performance-based incentive program, with a *10-year declining pay-out schedule* provided to eligible solar

projects installed in each of those 10 years. The 10-year declining pay-out schedule provides two advantages. First, it balances required funding requirements throughout the term of the program. A levelized pay-out for each year of the program would result in a spike in funding requirements at the end of the program. Second, it enables the payment stream to the customer to be front-loaded, shortening the investment's payback time.

The PBI payments also take into account the 30% Federal tax credit available in 2006 and 2007, but assume that the Federal tax credit will return to 10% for the remainder of the initial-year installment program period from 2008 to 2016.¹² The proposed PBI program, therefore, constitutes a conservative estimate of required funding, which would be reduced in the event the 30% Federal tax credit is extended past 2007. Table 4 indicates the proposed PBI payment schedules (\$/kWh) for each program year as follows:

Table 4: Proposed PBI Payment Schedules (\$/kWh) for Each Program Year

10-Year PBI Program: 10-Year Declining PBI Pay-out Schedule (\$/kWh)										
Pay-out Year	Initial Year of Operation ¹³									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	0.495	0.495	0.425	0.355	0.290	0.225	0.165	0.110	0.060	0.025
2	0.446	0.446	0.383	0.320	0.261	0.203	0.149	0.099	0.054	0.023
3	0.401	0.401	0.344	0.288	0.235	0.182	0.134	0.089	0.049	0.020
4	0.361	0.361	0.310	0.259	0.211	0.164	0.120	0.080	0.044	0.018
5	0.325	0.325	0.279	0.233	0.190	0.148	0.108	0.072	0.039	0.016
6	0.292	0.292	0.251	0.210	0.171	0.133	0.097	0.065	0.035	0.015
7	0.263	0.263	0.226	0.189	0.154	0.120	0.088	0.058	0.032	0.013
8	0.237	0.237	0.203	0.170	0.139	0.108	0.079	0.053	0.029	0.012
9	0.213	0.213	0.183	0.153	0.125	0.097	0.071	0.047	0.026	0.011
10	0.192	0.192	0.165	0.138	0.112	0.087	0.064	0.043	0.023	0.010

¹² For the years where a 10% Federal tax credit is in effect, the program structure supports the targeted 8% return for commercial customers and 7% return for government and non-profit customers. However, because the 30% Federal tax credit provides increased benefits to commercial customers than government customers, ASPv recommends consideration of additional low-interest sources of financing for government and non-profit customers in the event the 30% Federal tax credit is extended.

¹³ This assumes CSI program start-up in 2006; initial incentive funding would be committed in 2006 but not paid out until installations are complete in 2007.

C. Required Funding

As mentioned above, the program structure enables balanced funding requirements throughout the term of the proposed PBI program. In the budget numbers shown in Table 5 below, that the costs of the program envisioned would build over time, leading to a gap between the maximum funding required in a given year, \$287 million, and the average annual dollars needed during the first ten (10) years of the program, \$213 million. Because of the ten (10) year pay-out of the commercial PBI payments, there are residual payments and administration costs of \$526 million required after the initial-year installment deadline of 2017 in order to fully fund the remaining years of PBI for systems installed after 2007. Together these payments amount to approximately \$2.65 billion over the life of the program.

Table 5: Combined program funding requirements

Initial Year of Operation *	Total Direct Incentives	Admin Costs	Total Annual Funding Requirement	Direct Incentive Sub-Totals			Average Cost to CA Retail Consumers (\$/kWh)	Total Funding Requirement Rolling Average
				Commercial Incentive Payments	Residential New Home Rebate Payments	Residential Retrofit Rebate Payments		
2007	\$97,973,517	\$1,979,735	\$99,953,253	\$6,856,413	\$13,117,104	\$78,000,000	\$0.00040	\$97,973,517
2008	\$138,032,996	\$2,380,330	\$140,413,326	\$37,622,639	\$21,210,357	\$79,200,000	\$0.00055	\$118,003,257
2009	\$172,929,229	\$2,729,292	\$175,658,521	\$55,150,909	\$36,960,000	\$80,818,320	\$0.00068	\$136,311,914
2010	\$196,542,767	\$2,965,428	\$199,508,195	\$71,505,363	\$48,260,000	\$76,777,404	\$0.00076	\$151,369,627
2011	\$218,853,720	\$3,188,537	\$222,042,257	\$80,714,467	\$64,800,000	\$73,339,253	\$0.00084	\$164,866,446
2012	\$242,747,965	\$3,427,480	\$246,175,444	\$94,643,835	\$70,104,130	\$78,000,000	\$0.00092	\$177,846,699
2013	\$268,869,617	\$3,688,696	\$272,558,313	\$108,869,617	\$70,000,000	\$90,000,000	\$0.00100	\$190,849,973
2014	\$282,775,879	\$3,827,759	\$286,603,637	\$119,115,879	\$74,200,000	\$89,460,000	\$0.00104	\$202,340,711
2015	\$279,433,898	\$3,794,339	\$283,228,237	\$137,233,898	\$61,600,000	\$80,600,000	\$0.00102	\$210,906,621
2016	\$199,381,912	\$2,993,819	\$202,375,731	\$138,781,912	\$22,200,000	\$38,400,000	\$0.00072	\$209,754,150
Subtotals:	\$2,097,541,500	\$30,975,415	\$2,128,516,915	\$850,494,932	\$482,451,591	\$764,594,977		
Avg. Annual Totals (2007-2016)	\$209,754,150	\$3,097,541	\$212,851,691	\$85,049,493	\$48,245,159	\$76,459,498	\$0.00072	
		\$516,975,617	\$9,127,711	\$526,103,327	Total Additional Funding Requirement beyond 2016 (2017-2025)			

\$2,654,620,242 TOTAL FUNDING REQUIREMENT (2007-2025)

* Reflects actual payment schedule; incentives and rebates will be reserved 6 months to 1 year prior to being paid.

In the funding requirements shown above, large commercial systems make an immediate transition to PBI, while residential retrofit and new home categories continue to receive capacity-based rebate payments. It is anticipated that the 2007 funding year will be for projects that receive PBI reservations during 2006 – given the average one-year lag time between confirmed reservations and completed installations that is present in the current rebate program.

D. Comparison to Other Programs

California has had a difficult time establishing a stable rebate program over the past five years. Over-subscription and rebate allocations have made it difficult to depend on the availability of both the CEC and the CPUC programs. Currently, the CPUC program is over-subscribed and has not accepted any new rebate applications since February 2005. Germany and Japan on the other hand have created stable long-term programs that have led to significant investment in manufacturing, assembly, installer training, and consumer education. While California has received some of these benefits, the current initiative before the CPUC is designed to better leverage all of these benefits through a stable ten (10) year declining PBI program.

The program, as envisioned above, would leverage the existing rebate forms and procedures within the State of California. The program above leverages the benefits of the German model for commercial projects through a performance-based incentive and takes the lessons from the Japanese market on the residential and new home construction program.

E. PowerClerk

Another essential aspect of the proposed PBI program is the immediate implementation of the on-line program for rebate applications entitled “PowerClerk”, as described in Attachment B to this motion, which would greatly advance application processing and further transparency in the new CSI program. This web-based application tool is currently being used by the New York

State Energy Research and Development Authority (NYSERDA), Connecticut, Clean Energy Fund, and the Sacramento Municipal Utility District (SMUD). ASPv recommends the immediate implementation of PowerClerk for the entire CSI program to (i) receive and process on-line applications, (ii) help in providing real-time analysis of the solar program and (iii) report program results in an open and transparent manner. Implementation of PowerClerk in the CSI for PBI would go a long way towards advancing program analysis by providing transparent program data such as installed costs across all the states and organizations that use this system. This transparent tool can calculate across the various state program differences such as DC, AC and PTC. PowerClerk also has the ability to accommodate performance-based incentives immediately. ASPv's understanding is that this program could be tailored to California's needs and be up and running beginning in first or second quarter of 2006.

ASPv strongly recommends that the Commission endorse the use of the PowerClerk program in the CSI to ensure further program transparency. ASPv recommends that the Commission request that the CEC PIER program immediately fund this effort to ensure that PowerClerk is tailored to the CSI program needs, most importantly the immediate transition to PBI for the larger commercial projects.

III. ASPv's Recommended Process and Schedule for Review, Approval, and Implementation of Its Proposed PBI Program, Including PowerClerk, Should Be Adopted Expeditiously by the Commission.

The Commission must move quickly and decisively to adopt a CSI PBI program for large commercial customers no later than the first quarter of 2006. Any slippage of PBI program implementation beyond the second quarter of 2006 will result in the inability to capture any benefits of the 2006 and 2007 Federal tax credits.

ASPV believes that this aggressive schedule can only be met if the Commission adopts the PBI program proposed by ASPv in this motion, including implementation of PowerClerk for both application processing and PBI.¹⁴ To that end, ASPv, by this motion, requests that the Commission adopt the follow schedule for the review, approval, and implementation of ASPV's proposed PBI program. Because the Commission Meeting Schedule for 2006 has not yet been published, a Commission Meeting on March 23, 2006 is assumed.

PROPOSED SCHEDULE

DATE	EVENT
November 28, 2005	Responses to ASPv Motion.
December 8, 2005	Reply by ASPv (with ALJ permission) to Responses.
December 28, 2005	ALJ's Ruling Scheduling Public Workshop Presentation of ASPv PBI Proposal
January 9, 2006	Public Workshop Presentation of ASPv PBI Proposal, CPUC, San Francisco.
January 23, 2006	Comments on ASPv PBI Proposal.
January 30, 2006	Reply Comments on ASPv PBI Proposal.
February 21, 2006	Draft Decision on ASPv PBI Proposal.
March 13, 2006	Opening Comments on Draft Decision.
March 20, 2006	Reply Comments on Draft Decision.
March 23, 2006	Final Commission Decision Adopting ASPv PBI Proposal.

¹⁴ ASPv has requested that the CEC fund the tailoring of the PowerClerk program to the CSI program through the PIER program.

CONCLUSION

ASpv respectfully requests that the Commission grant, on an expedited basis, the above motion for review, approval, and implementation of its proposed PBI program for large commercial customers participating in the California Solar Initiative (CSI). ASPv believes that immediate consideration and implementation of its PBI proposal will greatly enhance and further the goals of the CSI.

Respectfully submitted,

/s/ JAN E. MCFARLAND

JAN E. McFARLAND

Executive Director of ASPv

1100 11th Street, Suite 323

Sacramento, CA 95113

(916) 346-7578

(916) 447-2940

janmcfar@sonic.net

/s/ MEGAN MACNEIL MYERS

MEGAN MACNEIL MYERS

Attorney for ASPv

509 – 32nd Avenue

San Francisco, CA 94121

(415) 994-1616

(415) 387-4708 (FAX)

meganmmyers@yahoo.com

November 10, 2005

ATTACHMENT A

ASPs Performance Based Incentives (PBI) Model

ATTACHMENT B

PowerClerk

CERTIFICATE OF SERVICE

I, Megan MacNeil Myers, am over the age of 18 years and employed in the City and County of San Francisco. My business address is 509 32nd Avenue, San Francisco, California 94121.

On November 10, 2005, I served the within document, **MOTION OF THE AMERICANS FOR SOLAR POWER MOTION FOR ADOPTION OF PERFORMANCE-BASED INCENTIVES FOR LARGE COMMERCIAL CUSTOMERS IN THE CALIFORNIA SOLAR INITIATIVE** in R.04-03-017, with service pursuant to the electronic protocols adopted for R.04-03-017, at San Francisco, California.

Executed on November 10, 2005, at San Francisco, California.

/s/ MEGAN MACNEIL MYERS

Megan MacNeil Myers

ASSUMPTIONS

Year 1 Installation Cost (\$/Wac-cec)	\$7.65
Avg. Production per kWac-real	1,840
Performance Degradation	0.60%
AC-cec rating to AC-real rating factor	90%
Blended Avg. IOU Elec. Rate	0.125
Annual Avg. Rate Increase	3.0%

PBI Annual Decline	10%
PBI Pay-out Term (years)	10
In-State Bonus	0%
Distribution Energy Bonus	0%

Federal Tax Rate	35.0%
State Tax Rate	7.8%
Blended Federal & State	40.1%
Discount Rate	10.0%

Assumptions
From Other Chart
Recalculate

Initial Year of Operation*	Annual PBI plus capital rebate expenditures	California Solar Initiative Program									Target IRR:	8.0%		
		Solar MWhs annually eligible for PBI Program	ANNUAL SOLAR MWac-cec Installed	PBI payment per MWh	Customer Bill Savings per kWh	Capital Rebate	Fed ITC	CA ITC	Value of Tax Benefits (% of Net Cost)	Avg Install Price (\$/Wac-cec)	System Cost Decline	Com IRR		Gov IRR
			See Data Table on the Right											
2007	\$6,856,413	13,851	28.7	495	0.125	\$0.00	30%	0%	54.4%	\$7.65		12.6%	5.5%	
2008	\$37,622,639	77,390	33.9	495	0.129	\$0.00	10%	0%	38.9%	\$7.11	7%	8.0%	7.0%	
2009	\$55,150,909	127,486	37.3	425	0.133	\$0.00	10%	0%	38.9%	\$6.62	7%	8.0%	7.1%	
2010	\$71,505,363	189,090	43.5	355	0.137	\$0.00	10%	0%	38.9%	\$6.15	7%	8.0%	7.1%	
2011	\$80,714,467	245,503	49.2	290	0.141	\$0.00	10%	0%	38.9%	\$5.72	7%	7.9%	7.1%	
2012	\$94,643,835	343,284	66.0	225	0.145	\$0.00	10%	0%	38.9%	\$5.32	7%	7.9%	7.0%	
2013	\$108,869,617	486,861	96.3	165	0.149	\$0.00	10%	0%	38.9%	\$4.95	7%	7.8%	7.0%	
2014	\$119,115,879	678,981	139.6	110	0.154	\$0.00	10%	0%	38.9%	\$4.60	7%	7.8%	7.0%	
2015	\$137,233,898	1,179,475	283.3	60	0.158	\$0.00	10%	0%	38.9%	\$4.28	7%	7.9%	7.1%	
2016	\$138,781,912	1,790,331	471.5	25	0.163	\$0.00	10%	0%	38.9%	\$3.98	7%	8.2%	7.5%	
2017	\$122,513,037	1,776,479			0.168	\$0.00		0%	31.2%	\$3.98	0%			
2018	\$99,295,146	1,712,940			0.173	\$0.00		0%	31.2%	\$3.98	0%			
2019	\$81,942,081	1,662,845			0.178	\$0.00		0%		\$3.98	0%			
2020	\$66,122,434	1,601,241			0.184	\$0.00				\$3.98	0%			
2021	\$53,805,937	1,544,828			0.189	\$0.00				\$3.98	0%			
2022	\$40,754,133	1,447,047			0.195	\$0.00				\$3.98	0%			
2023	\$28,418,470	1,303,470			0.201	\$0.00				\$3.98	0%			
2024	\$18,207,924	1,111,350			0.207	\$0.00				\$3.98	0%			
2025	\$5,916,455	610,856			0.213	\$0.00				\$3.98	0%			
2026	\$0	0			0.219	\$0.00				\$3.98	0%			
2027	\$0				0.226	\$0.00				\$3.98	0%			
2028	\$0				0.233	\$0.00				\$3.98	0%			
2029	\$0				0.240	\$0.00				\$3.98	0%			
2030	\$0				0.247	\$0.00				\$3.98	0%			
2031	\$0				0.254	\$0.00				\$3.98	0%			
2032	\$0				0.262					\$3.98	0%			
2033	\$0				0.270					\$3.98	0%			
2034	\$0				0.278					\$3.98	0%			
2035	\$0				0.286					\$3.98	0%			
2036	\$0				0.295					\$3.98	0%			
Totals for Program	\$1,367,470,549	17,903,307	1,249	Average \$/Wac-cec = \$1.09										

* Reflects actual payment schedule; incentives and rebates will be reserved 6 months to 1 year prior to being paid.

5%

NPV \$0.00 \$883,278,134.68 \$883,278,134.68 \$0.00 \$1,265,066,831.33 \$1,265,066,831.33

Year	Multi Year Allocation			Yearly Allocation		
	CBI	PBI	Total	CBI	PBI	Total
2007	\$0	\$6,856,413	\$6,856,413	\$0	\$153,229,676	\$153,229,676
2008	\$0	\$37,622,639	\$37,622,639	\$0	\$180,992,544	\$180,992,544
2009	\$0	\$55,150,909	\$55,150,909	\$0	\$170,983,242	\$170,983,242
2010	\$0	\$71,505,363	\$71,505,363	\$0	\$166,561,030	\$166,561,030
2011	\$0	\$80,714,467	\$80,714,467	\$0	\$153,893,008	\$153,893,008
2012	\$0	\$94,643,835	\$94,643,835	\$0	\$160,170,393	\$160,170,393
2013	\$0	\$108,869,617	\$108,869,617	\$0	\$171,382,320	\$171,382,320
2014	\$0	\$119,115,879	\$119,115,879	\$0	\$165,628,051	\$165,628,051
2015	\$0	\$137,233,898	\$137,233,898	\$0	\$183,338,474	\$183,338,474
2016	\$0	\$138,781,912	\$138,781,912	\$0	\$127,138,620	\$127,138,620
2017	\$0	\$122,513,037	\$122,513,037	\$0	\$0	\$0
2018	\$0	\$99,295,146	\$99,295,146	\$0	\$0	\$0
2019	\$0	\$81,942,081	\$81,942,081	\$0	\$0	\$0
2020	\$0	\$66,122,434	\$66,122,434	\$0	\$0	\$0
2021	\$0	\$53,805,937	\$53,805,937	\$0	\$0	\$0
2022	\$0	\$40,754,133	\$40,754,133	\$0	\$0	\$0
2023	\$0	\$28,418,470	\$28,418,470	\$0	\$0	\$0
2024	\$0	\$18,207,924	\$18,207,924	\$0	\$0	\$0
2025	\$0	\$5,916,455	\$5,916,455	\$0	\$0	\$0
2026	\$0	\$0	\$0	\$0	\$0	\$0
2027						
2028						
2029						
2030						
2031						
2032						
2033						
2034						
2035						
2036						
Totals through 2036	\$0	\$1,367,470,549	\$1,367,470,549	\$0	\$1,633,317,356	\$1,633,317,356

PBI per MWH

Calendar Year	Project Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2007	2007	495																				
2008	2008	446	495																			
2009	2009	401	446	425																		
2010	2010	361	401	383	355																	
2011	2011	325	361	344	320	290																
2012	2012	292	325	310	288	261	225															
2013	2013	263	292	279	259	235	203	165														
2014	2014	237	263	251	233	211	182	149	110													
2015	2015	213	237	226	210	190	164	134	99	60												
2016	2016	192	213	203	189	171	148	120	89	54	25											
2017	2017	0	192	183	170	154	133	108	80	49	23	0										
2018	2018	0	0	165	153	139	120	97	72	44	20	0	0									
2019	2019	0	0	0	138	125	108	88	65	39	18	0	0	0								
2020	2020	0	0	0	0	112	97	79	58	35	16	0	0	0	0							
2021	2021	0	0	0	0	87	71	53	32	15	0	0	0	0	0	0						
2022	2022	0	0	0	0	0	64	47	29	13	0	0	0	0	0	0	0					
2023	2023	0	0	0	0	0	0	43	26	12	0	0	0	0	0	0	0	0				
2024	2024	0	0	0	0	0	0	0	23	11	0	0	0	0	0	0	0	0	0			
2025	2025	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0		
2026	2026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2027	2027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2028	2028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2029	2029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2031	2031	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2032	2032	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2033	2033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2034	2034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2035	2035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2036	2036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10-Year PBI Program: 10-Year Declining PBI Pay-out Schedule (\$/kWh)

Pay-out Year	Initial Year of Operation*									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	0.495	0.495	0.425	0.355	0.290	0.225	0.165	0.110	0.060	0.025
2	0.446	0.446	0.383	0.320	0.261	0.203	0.149	0.099	0.054	0.023
3	0.401	0.401	0.344	0.288	0.235	0.182	0.134	0.089	0.049	0.020
4	0.361	0.361	0.310	0.259	0.211	0.164	0.120	0.080	0.044	0.018
5	0.325	0.325	0.279	0.233	0.190	0.148	0.108	0.072	0.039	0.016
6	0.292	0.292	0.251	0.210	0.171	0.133	0.097	0.065	0.035	0.015
7	0.263	0.263	0.226	0.189	0.154	0.120	0.088	0.058	0.032	0.013
8	0.237	0.237	0.203	0.170	0.139	0.108	0.079	0.053	0.029	0.012
9	0.213	0.213	0.183	0.153	0.125	0.097	0.071	0.047	0.026	0.011
10	0.192	0.192	0.165	0.138	0.112	0.087	0.064	0.043	0.023	0.010

CALCULATIONS

	Avg Annual G	Inflation
10-year	1,791	
20-year	1,739	134%
25-year	1,714	146%

year	kWh/kWac	inflation	Fed Depr	State Depr
1	1,840	100%	20.0%	4.2%
2	1,829	103%	32.0%	8.3%
3	1,818	106%	19.2%	8.3%
4	1,807	109%	11.5%	8.3%
5	1,796	113%	11.5%	8.3%
6	1,786	116%	5.8%	8.3%
7	1,775	119%		8.3%
8	1,764	123%		8.3%
9	1,754	127%		8.3%
10	1,743	130%		8.3%
11	1,733	134%		8.3%
12	1,722	138%		8.3%
13	1,712	143%		
14	1,702	147%		
15	1,692	151%		
16	1,682	156%		
17	1,672	160%		
18	1,662	165%		
19	1,652	170%		
20	1,642	175%		
21	1,632	181%		
22	1,622	186%		
23	1,612	192%		
24	1,603	197%		
25	1,593	203%		
			100%	96%

Calculate Total Cost of PBI (\$/Year)

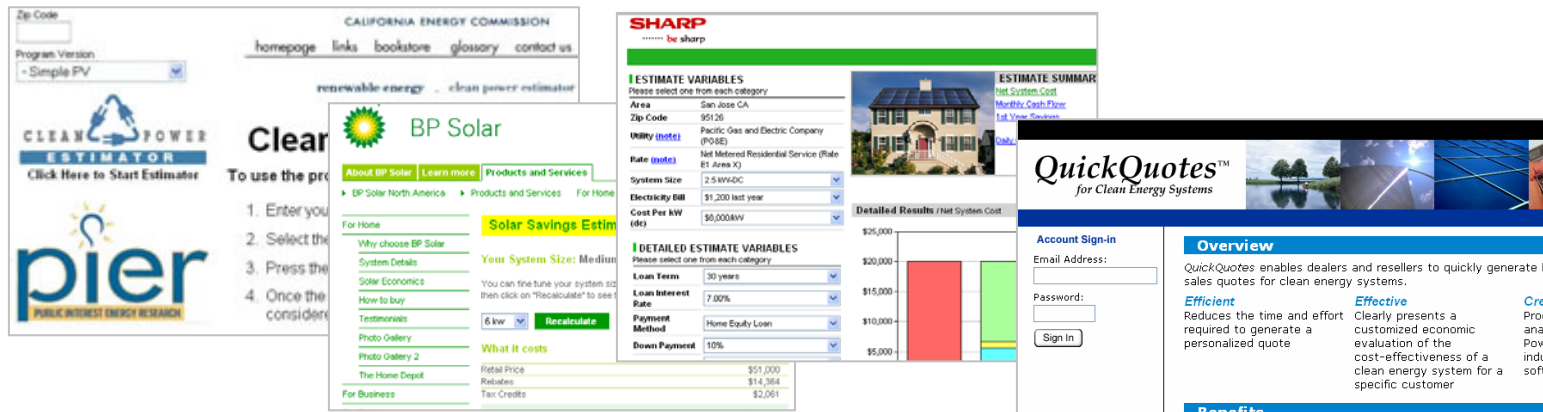
New Eligible																						Total			
MWh for PBI	PBI \$	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027			
2007	13,851	6,856,413	-																				\$	6,856,413	2007
2008	63,539	6,170,772	31,451,866																				\$	37,622,639	2008
2009	50,095	5,553,695	28,306,680	21,290,534																			\$	55,150,909	2009
2010	61,604	4,998,325	25,476,012	19,161,481	21,869,546																		\$	71,505,363	2010
2011	56,413	4,498,493	22,928,411	17,245,332	19,682,591	16,359,640																	\$	80,714,467	2011
2012	97,781	4,048,644	20,635,570	15,520,799	17,714,332	14,723,676	22,000,815																\$	94,643,835	2012
2013	143,577	3,643,779	18,572,013	13,968,719	15,942,899	13,251,308	19,800,733	23,690,166															\$	108,869,617	2013
2014	192,120	3,279,401	16,714,811	12,571,847	14,348,609	11,926,177	17,820,660	21,321,149	21,133,223														\$	119,115,879	2014
2015	500,493	2,951,461	15,043,330	11,314,663	12,913,748	10,733,560	16,038,594	19,189,034	19,019,901	30,029,607													\$	137,233,898	2015
2016	610,856	2,656,315	13,538,997	10,183,196	11,622,373	9,660,204	14,434,735	17,270,131	17,117,911	27,026,647	15,271,404												\$	138,781,912	2016
2017	-13,851	-	12,185,097	9,164,877	10,460,136	8,694,183	12,991,261	15,543,118	15,406,120	24,323,982	13,744,263	-											\$	122,513,037	2017
2018	-63,539	-	-	8,248,389	9,414,122	7,824,765	11,692,135	13,988,806	13,865,508	21,891,584	12,369,837	-	-										\$	99,295,146	2018
2019	-50,095	-	-	-	8,472,710	7,042,288	10,522,922	12,589,925	12,478,957	19,702,425	11,132,853	-	-	-									\$	81,942,081	2019
2020	-61,604	-	-	-	-	6,338,060	9,470,629	11,330,933	11,231,061	17,732,183	10,019,568	-	-	-	-								\$	66,122,434	2020
2021	-56,413	-	-	-	-	-	8,523,566	10,197,840	10,107,955	15,958,965	9,017,611	-	-	-	-	-							\$	53,805,937	2021
2022	-97,781	-	-	-	-	-	-	9,178,056	9,097,160	14,363,068	8,115,850	-	-	-	-	-	-						\$	40,754,133	2022
2023	-143,577	-	-	-	-	-	-	-	8,187,444	12,926,761	7,304,265	-	-	-	-	-	-	-					\$	28,418,470	2023
2024	-192,120	-	-	-	-	-	-	-	-	11,634,085	6,573,839	-	-	-	-	-	-	-	-				\$	18,207,924	2024
2025	-500,493	-	-	-	-	-	-	-	-	-	5,916,455	-	-	-	-	-	-	-	-	-			\$	5,916,455	2025
2026	-610,856	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		\$	-	2026
2027	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2027
2028	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2028
2029	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2029
2030	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2030
2031	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2031
2032	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2032
2033	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2033
2034	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2034
2035	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2035
2036	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$	-	2036
Totals for Program																							\$	1,367,470,549	

[THIS PAGE INTENTIONALLY LEFT BLANK.]



www.PowerClerk.com

From The Creators of Clean Power Estimator and QuickQuotes



Currently used by NYSERDA, CCEF, and SMUD



....with others pending

What does PowerClerk do?

Receive incentive applications

Process incentive applications

Analyze clean energy programs

Report on program results



POWERCLERK™
Applications Administration PowerView™ Settings Help Logout

New Incentive Application

Installer: Allen, Rutledge (The 3rd Company)
Application number: 00078-001 Date Received: 1/26/2008

Owner:
First Name: Last Name:
Company Name:
Phone Number: () - - ext. Home

Installation Address:
Site 1:
Site 2:
City: State: County: Zip Code:
NY Select County

Power Utility Profile:
Utility Service Territory: Central Hudson Gas & Electric Utility Sector: Residential Single Family Annual Usage: 8,500 kWh

Manufacturer	Model	Qty. & Wts	Unit Cost	Total Cost
PV Select Mfg.	Select Model	1	\$0.00	\$0.00
Inverter Select Mfg.	Select Model	1	\$0.00	\$0.00
Batteries		0.0	\$0.00	\$0.00
Labor			\$0.00	\$0.00
Permit			\$0.00	\$0.00
Total				\$0.00
Incentive (\$4.00 per kWh (Expires 01/01/2008))				\$0.00
Net Cost				\$0.00

PV Installation:
Azimuth: 0° South 90° 180° 270° Show Roof Pitch
Solar Orientation (Shading) Angles:
West 60° 30° South 30° 60° East
0° 0° 0° 0° 0° 0° 0° 0°

System Specs:
System Rating (DC at STC) 0.0 W
Inverter Efficiency 0.0%
System Rating (AC assuming system losses) 0.0 W
Annual Power Consumption 8,500 kWh
Estimated Annual Power Production 0.0 kWh
Percentage of Current Demand Met by System 0.0%

Expected Installation Date: Expected Interconnection Date:

Required Paperwork Received:
☐ Proof of 5-Year Full Warranty on Complete System
☐ Estimate of Annual Output
☐ Site Map
☐ One-Line Electrical Drawing
☐ List Sheets for all Major Components
☐ System Installation Manual
☐ Homeowner Operation and Maintenance Instructions
☐ Shading Analysis Results
☐ Signed Installer-Customer Purchase Agreement
☐ Building Permit
☐ Utility Permit
☐ Proof of System Benefit Charge Payment

Status of Application when Saved: Received


Notes:

Save Incentive Application

Simple & Complete Application

- Multiple customer, installer, and dealer contacts
- CEC-approved equipment in drop down lists
- Automatic incentive calculation
- System specification w/ orientation & shading
- Rating calculations & performance estimates
- Customized paperwork
- On-line application submission

Administration of All Applications



Applications Administration PowerView™ Settings | Help | Logout

New Incentive Application Application Status Any Status ▼

	Application #	Installer	Customer	Status	Status Date
	02009-004	Bethanie Smallwood	Ciara Kincaide	Revoked	04/15/2004
	02011-020	Alethea Nuzzi		Received	06/08/2005
	02012-022	Brady Carkhuff	Jovita Bandulin	Received	07/05/2005
	02014-014	Bernetta Colbenson	Luana Gut	Received	07/05/2005
	02003-011	Pablo Eppler	Mellie Garsee	Received	06/27/2005
	02008-005	Gracia Frates	Floyd Armant	Received	07/05/2005
	02018-018	Ross Schwenck	Harland Heitzmann	Received	07/13/2005
	02036-003	Myles Birnbaum	Heath Twomey (Solar Prominence)	Received	05/04/2005
	02036-004	Myles Birnbaum	Olga Deffibaugh (Homogenous Theory PV)	Received	05/04/2005
	02043-005	Larissa Owens	Davina Rylant	Received	06/17/2005
	02056-007	Hope Ditsch	Weston Hasselbarth	Received	07/08/2005
	02056-005	Hope Ditsch	Tamika Githens	Received	06/29/2005
	02004-003	Regina Besser	Denyse Tumblin	Denied	05/20/2003
	02012-015	Brady Carkhuff	Modern Electric Company	Denied	03/04/2005
	02009-009	Bethanie Smallwood	Leota Garahan	Denied	06/27/2005
	02010-001	Hollis Paszkiewicz	Myrtice Gilberti	Completed	11/02/2004
	02011-018	Alethea Nuzzi	Neville Hippe	Completed	06/29/2005
	02012-001	Brady Carkhuff	Chloe Olaya	Completed	04/30/2004
	02012-002	Brady Carkhuff	Maryam Kissee	Completed	01/08/2004
	02012-003	Brady Carkhuff	Phillip Dorfman	Completed	04/16/2004

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Applications: 11 Received 84 Approved 10 Cancelled 191 Completed 3 Denied 1 Revoked 300 Total

Copyright © 2004-2005 Clean Power Research, LLC. All rights reserved.

- Fast visualization of program status
- Customized sorting capability
- Edit individual applications

POWERCLERK™
Applications Administration PowerView™ Settings | Help | Logout

Incentive Application 02011-018 Application Date: 2/7/2005

Current Status
Marked Completed by user0003@clean-power.com on Jun 29 2005 12:00AM [View Status History](#)

Customer Contacts
[✕](#) [✕](#) Neville Hippe
[Add New Contact](#)

Customer Addresses
[✕](#) [✕](#) 0544 Ambergate Drive - Jay, NY 12941
[Add New Address](#)

Utility Co. & Power Usage
[✕](#) Central Hudson Gas & Electric - Single Family, Residential - Power Consumption: 6500 kWh/Year

Installers, Inspectors, and Related Companies
[✕](#) [✕](#) Installer: Thunder and Lighting (Alethea Nuzzi)
[Add Company](#)

Selected Incentive
[✕](#) \$4.00 per Watt

System Equipment & Other Components : 6.51 kW DC-STC / 3.48 kW AC-PTC

✕ ✕ 39 - Kyocera Solar, Inc. 167 Watt (Model KC167G)	\$24,990.00
✕ ✕ 1 - SMA America 6.0 kW (Model SB6000U)	\$4,096.00
✕ ✕ 1 - Installation Labor Overhead	\$12,200.00
✕ ✕ 1 - Installation Balance of System	\$10,549.00
Total Cost:	\$51,835.00
Incentive Amount:	\$26,052.00

☐ Override Calculated Incentive Amount

[Add New Component](#)

Application Paperwork

- [✕](#) [✕](#) 04/05/2005: Equipment Delivery
- [✕](#) [✕](#) 02/11/2005: Notification Sent
- [✕](#) [✕](#) 02/07/2005: Proof of 5-Year Full Warranty on Complete System
- [✕](#) [✕](#) 02/07/2005: Estimate of Annual Output
- [✕](#) [✕](#) 02/07/2005: Site Map
- [✕](#) [✕](#) 02/07/2005: One-line Electrical Drawing
- [✕](#) [✕](#) 02/07/2005: Cut Sheets for all Major Components
- [✕](#) [✕](#) 02/07/2005: System Installation Manual
- [✕](#) [✕](#) 02/07/2005: Homeowner Operation and Maintenance Instructions
- [✕](#) [✕](#) 02/07/2005: Shading Analysis Results
- [✕](#) [✕](#) 02/07/2005: Signed Installer-Customer Purchase Agreement
- [✕](#) [✕](#) 02/07/2005: Proof of System Benefit Charge Payment
- [✕](#) [✕](#) 02/07/2005: Building Permit

[Add Paperwork](#)

Payments

✕ ✕ Initial Payment	\$19,539.00	Last Action: Approved on 4/25/2005
✕ ✕ Final Payment	\$6,513.00	Last Action: Approved on 6/29/2005
Total Payments:	\$26,052.00	

[Add Payment](#)

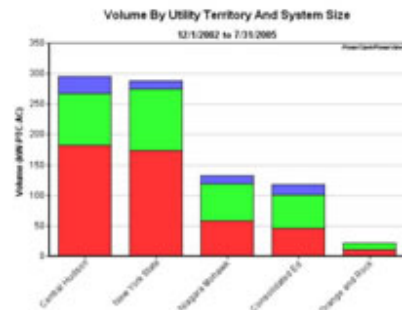
System Performance
Estimated Production: 6783 kWh Annually

[Date Measured](#) [Total kWh Prod.](#) [Change in kWh Prod.](#)
[Add Measured Production](#)

Incentive Application Notes
[✕](#) <there are no notes for this application>

Simplified Application Administration

- Track incentive status
- Manage multiple customer contacts
- Revise equipment after submission
- Create paper trail of all paperwork actions
- Track payment history
- Record system performance after installation



Inspections Completed

Monday, August 01, 2005

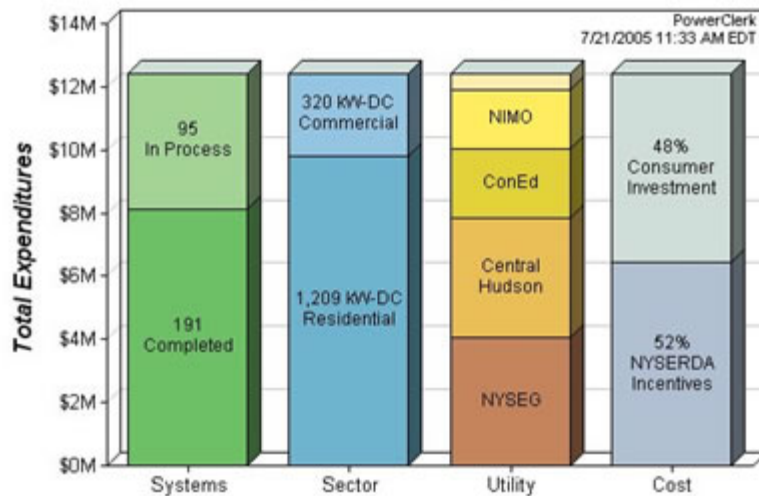
Application #	Installer	Customer Name	Date Completed
02001-001	Chittum, Madge	Georgiana Felix, Pearl's Liberty	10/28/2003
02001-002	Chittum, Madge	Julia Polanco	10/28/2003
02001-003	Chittum, Madge	Suzanne Colby, Driscoll Latham	08/12/2004
02001-004	Chittum, Madge	Katrin Allen	03/03/2005
02001-005	Chittum, Madge	Kari Shanks	03/03/2005
02002-001	Burlingham, Valerie	Amelia Thack	11/03/2003
02002-002	Burlingham, Valerie	David H. LLC	02/06/2004
02002-003	Burlingham, Valerie	Madeline Wertheim, Lorraine Christian	11/03/2003
02003-001	Eppler, Fabio	Juan Zelman (Daugen P)	05/01/2005
02004-001	Besser, Regina	Martha Viana	04/04/2003
02004-002	Besser, Regina	Thud and Tim Solar	08/03/2003
02004-004	Besser, Regina	Wesport Insulatt	08/28/2003
02004-005	Besser, Regina	Deanna Behrman, Deetta Reed	07/28/2004
02005-001	Lambert, Doran	Tim Skiles	09/06/2003
02005-002	Lambert, Doran	Electric E&I, Inc.	12/01/2004
02005-003	Lambert, Doran	Ampt Handling, LLC	09/04/2003
02005-004	Lambert, Doran	United Energy Company	11/05/2003
02005-005	Lambert, Doran	Clark Washburn, Mike Klemm	08/01/2004
02005-006	Lambert, Doran	Reuben Angello	10/01/2003
02005-011	Lambert, Doran	5,900 Degrees Fahrenheit	12/03/2003
02006-001	Grabenstein, Kasey	Audrey Cassinelli (Heads and Tails Electric), Talisha Maldonado	12/03/2004
02006-002	Grabenstein, Kasey	Virtual Works Photovoltaics	02/02/2004
02006-003	Grabenstein, Kasey	Palma Enderson (Sunport Solar)	12/03/2003
02006-004	Grabenstein, Kasey	Valde Champagne	10/27/2003
02006-005	Grabenstein, Kasey	Una Gregorich	02/02/2004
02006-012	Grabenstein, Kasey	Uta Shire	03/25/2005
02006-011	Grabenstein, Kasey	Landiana Kuge	04/01/2005
02006-014	Grabenstein, Kasey	Charles Dwyer	04/11/2005



Analysis & Reporting: Management

- Facilitate complex analysis
- Provide management with real-time information
- Export to Access or Excel for custom analysis
- Obtain perspective that includes other programs

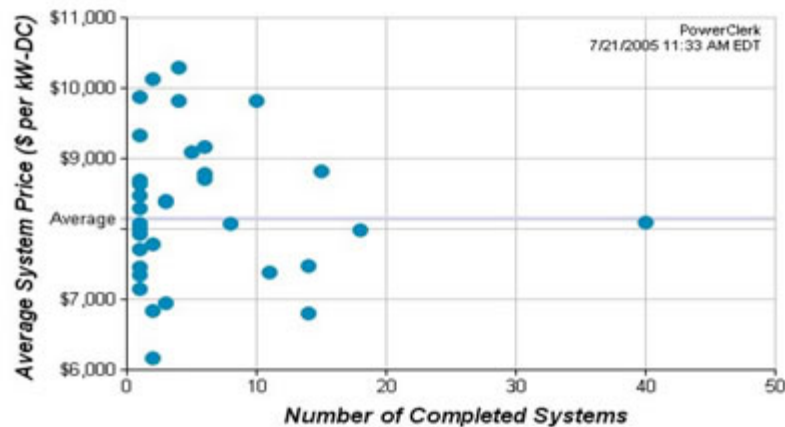
Program Summary



Analysis & Reporting: Industry

- Rapid comparison of program results
- Valuable information for industry
- Real-time reporting

Price Versus Completed Systems By Installer



What Do Customers Have to Say?

“PowerClerk does an excellent job of managing the information that accompanies incentive applications. PowerClerk helps us monitor equipment and installation costs, making it easier for us to track market trends. Furthermore, it simplifies program reporting and data analysis and has even enabled us to post real-time program information on our website.”

Dr. Joseph Visalli, NYSERDA’s Director of Energy Resources, Transportation and Power Systems, and Environmental Research

What Can You Do?

- Incentive Programs:
 - Arrange for a complete PowerClerk demonstration
- Clean Energy Industry:
 - Encourage your incentive agency to consider using PowerClerk as their assistant

For more information contact:

info@powerclerk.com